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ABSTRACT

Some research has suggested that positive life events may interact with negative life events during periods of high stress to buffer the effects of negative events. The relationships among positive and negative life events and positive and negative psychological status were examined in an investigation of the direct and mediating effects of positive and negative life events on both psychological distress and adaptive psychological functioning. College students (N=97) completed the Langner Psychiatric Screening Inventory, the Beck Depression Inventory, the Affect Balance Scale, and a version of the Quality of Life Scale. These measures and the College Student Life Event Scale were administered at two measurement periods separated by an 8-week interval. Analyses based on a multivariate hierarchical regression model revealed that negative and positive life events were independent predictors of same-domain measures of psychological functioning in each cross-sectional analysis, and remained strongly related to psychological functioning after statistically controlling for the effects of initial psychological status. There was no support for the stress-buffering (interactive) effects of positive life events. (Author/NRB)

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Stressful Life Event Influences on Positive and Negative Psychological Functioning

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Abstract

This investigation examined the relationships among positive and negative life events and positive and negative psychological status. College students were studied in a prospective design and statistical analyses were based on a multivariate hierarchical regression model. As predicted, negative and positive life events were independent predictors of same-domain measures of psychological functioning in each cross-sectional analysis, and remained strongly related to psychological functioning after statistically controlling for the effects of initial psychological status. There was no support for the stress-buffering (interactive) effects of positive life events.

Stressful Life Event Influences On Positive And Negative Psychological Functioning

The question of how positive life events both directly influence and mediate positive and negative psychological functioning remains relatively unexplored. Bradburn (1969) has proposed that positive and negative affect are not bipolar, but relatively orthogonal dimensions. Based on these findings, Zautra and Reich (1983) have proposed a two-factor model of psychological functioning. Briefly, positive events tend to influence positive psychological functioning while negative events more strongly influence negative psychological functioning. One condition where it is hypothesized that cross-domain effects will occur is during periods of high stress. Under these conditions, positive events are hypothesized to interact with negative events to buffer the impact of negative life events.

Much of the past research on stressful life events and psychological functioning rely on retrospective or cross-sectional methods. The results of such studies are open to several alternative explanations. Most notably, initial psychological status may influence both the reporting and experience of subsequent life events. Moreover, the overwhelming majority of past research on life stress and psychological functioning operationalize the latter construct solely in terms of the presence or absence of symptoms of psychological distress. The major constructs of the life stress literature also tend to be highly intercorrelated, though this problem has only recently been addressed. Finally, investigators often neglect to test for significant interactions between independent variables. In response to these issues, the present investigation prospectively examined the direct and mediating effects of positive and negative life events on both psychological distress and adaptive psychological functioning. A multivariate multiple regression model with an exact least squares solution was employed. This model assesses the

independent effects of each predictor (main and interactions) on all criteria as a whole, as well as each criteria separately.

Methods

Subjects

Subjects were 97 undergraduate students (51 males, 46 females).

Procedure

Subjects were group administered the Langner Psychiatric Screening Inventory (L-22), the Beck Depression Inventory (BDI), the Affect Balance Scale (NABS=negative affect; PABS=positive affect), and the abridged version of the Quality of Life Scale (QOL). These measures and the College Student Life Event Scale (CSLES) were administered at two measurement periods, separated by an eight week interval. At Time 1, subjects reported the occurrence and valance (positive or negative) of life events experienced in the last year. At Time 2, they reported the occurrence and valance of events experienced during the Time 1-Time 2 interval.

Results

Time 1 Findings. Consistent with the two-factor model, negative events were significantly related to the L-22, BDI and NABS measures of psychological distress and only weakly and negatively related to the QOL. Conversely, positive events were significantly and positively related to the PABS and QOL measures of positive psychological status, and unrelated to the L-22, BDI, or NABS.

Multivariate hierarchical regression analyses (with an exact least squares solution) tested the independent main and interaction effects of Time 1 negative and positive life event indices on the measures of psychological status. There was a significant multivariate main effect for Time 1 negative events ($p<.001$). The univariate results found a significant positive relationship between negative events and the measures of psychological

distress (L-22, BDI, NABS). The multivariate main effect for positive events was also significant ($p<.01$). The univariate regressions indicated positive events were significantly related to both measures of positive psychological status (QOL, PABS) and unrelated to the three measures of distress. The multivariate interaction between negative and positive events proved nonsignificant.

Time 2 Findings. The correlations between the Time 2 measures are extremely similar to those found at Time 1. The multivariate hierarchical regression analysis revealed a significant main effect for negative events ($p<.001$) with significant univariate main effects in the positive direction on the L-22, BDI, and NABS, and in the negative direction on the QOL. There was also a significant main effect for positive events ($p<.01$), with significant univariate main effects on the PABS and QOL measures of positive functioning. The multivariate and univariate positive x negative events interactions were not significant at Time 2.

Prospective Analysis. The Time 2 multivarite regressions were repeated, this time entering hierarchically the set of Time 1 criteria as first step predictors. The multivariate main effects for positive events was not significant ($p>.10$) despite a continuing univariate main effect (positive) on the QOL. There was a significant main effect for negative events on psychological status ($p<.001$). Negative events was positively related to the L-22 and BDI and negatively related to the QOL. The positive events x negative events interaction was not significant in the multivariate analyses.

Discussion

As predicted, number of negative events was an independent predictor of the three measures of psychological distress both in the cross-sectional and prospective analysis. The finding that negative life events were related to changes in distress levels is particularly notable given the relatively short

Time 1-Time 2 interval, the limited range of symptoms in a healthy sample, and the conservative statistical model employed. These findings are consistent with recent prospective investigations which have also found negative life events to be predictive of subsequent psychological distress.

The prediction that positive life events would relate to measures of positive psychological functioning was substantially confirmed. Positive events were a significant predictor of QOL and PABS at Time 1, and Time 2, and of QOL in the prospective analysis. Previous cross-sectional investigations have also found a positive relationship between positive life events and both life satisfaction and positive affect.The present findings are notable, however, in that naturally occurring positive events independently predicted life satisfaction, after controlling for initial psychological status.

The main effects of negative events on negative outcomes and positive events on positive outcomes are consistent with predictions of the two-factor model of psychological functioning with two notable exceptions. In the first case, positive events were unrelated to the PABS measure of positive affect in the prospective analysis. This finding may, in part, reflect the limited variability and relative stability of the PABS scores. The second exception concerns the consistently significant (negative) relationship, between negative events and the QOL measure of life satisfaction. Both Bradburn (1969) and Zautra and Reich (1983) underscore the relative independence of same domain life events and affective states. The QOL measure is designed to measure one's appraisal of current life situations, using external standards of comparison. While such appraisals intuitively include affective evaluations, the QOL has a strong attributional flavor that may not conform as readily to the hypothesized independence of affective domains.

The two-factor model of psychological functioning postulates that one important instance when the effects of positive events cross domains is under

periods of high life stress. There was no evidence of a stress-buffering (i.e. interaction) effects for positive events either cross-sectionally or prospectively. Two cross-sectional investigations have found evidence for a stress-buffering effect for positive events that had occurred over the past year (Cohen et al., in press; Cohen & Hoberman, 1983). While there is a strong theoretical rationale for the potential stress-buffering effects of positive events, prospective empirical support for such an effect remains elusive. It had been suggested that a two-month interval is too brief for positive events to show ameliorative effects. However, the present study found no support for a stress-buffering effect for positive events either at Time 1 (12 months) or Time 2 (2 months). Alternatively, buffering effects may reflect a process whereby specific positive events must occur in tandem with specific negative events. A similar stressor-event specificity hypothesis has been advocated for the dimensions of social support (Cohen & McKay, 1983). Similarly, it may be the explication of this matching process that holds the key to understanding how positive events may buffer stressful life events.

Table 1

Intercorrelations : Time 1 with Time 2 Measures

	Negative Events	Positive Events	ISEL	ISSB	CM	L-22	BDI	NABS	PABS	COL
Negative Events	.41[c]	16	-.22[a]	.18[a]	-.19[a]	.39[c]	.40[c]	.32[c]	-.12	-.13
Positive Events		.43[c]	.28[b]	.39[c]	.18[a]	.11	.06	.16	.21[a]	.30[b]
ISEL			.82[c]	.46[c]	.12	-.22[a]	-.17[a]	-.03	.45[c]	.59[c]
ISSB				.76[c]	.04	.13	.08	.17[a]	.21[a]	.34[c]
CM					.82[c]	-.35[c]	-.26[b]	-.31[c]	.15	.53[c]
L-22						.72[c]	.46[c]	.41[c]	-.02	-.33[c]
BDI							.64[c]	.32[c]	-.16	-.35[c]
NABS								.52[c]	-.02	-.23[b]
PABS									.68[c]	.53[c]
COL										.85[c]

[a] $p < .05$ [b] $p < .01$ [c] $p < .001$

Table 2

Intercorrelations : Time 1 Measures

	Positive Events	ISEL	ISSB	M-C	L-22	BDI	NABS	PABS	QOL
Negative Events	.31[c]	-.25[b]	.16	-.21[a]	.40[c]	.60[c]	.39[c]	-.09	-.18[a]
Positive Events		.25[b]	.29[b]	.24[b]	.04	.04	.13	.33[c]	.37[c]
ISEL			.47[c]	.24[b]	-.30[b]	-.40[c]	-.10	.63[c]	.72[c]
ISSB				.06	.10	.07	.19[a]	.45[c]	.40[c]
Marlowe-Crowne					-.42[c]	-.38[c]	-.40[c]	.17[a]	.48[c]
L-22						.76[c]	.65[c]	-.26[b]	-.41[c]
BDI							.49[c]	-.31[c]	-.46[c]
NABS								.09	-.20[c]
PABS									.58[c]

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[a] $p < .05$ [b] $p < .01$ [c] $p < .001$

Table 3

Intercorrelations : Time 2 Measures

	Positive Events	ISEL	ISSB	M-C	L-22	BDI	NABS	PABS	QOL
Negative Events	.49[c]	-.02	-.01	-.23[a]	.40[c]	.49[c]	.34[c]	.04	-.12
Positive Events		.27[b]	.26[b]	-.07	.05	-.04	.24[b]	.30[c]	.29[b]
ISEL			.47[c]	.30[b]	-.30[b]	-.31[c]	-.09	.52[c]	.77[c]
ISSB				.09	.03	-.02	.06	.32[c]	.38[c]
Marlowe-Crowne					-.32[c]	-.23[a]	-.39[c]	.03	.45[c]
L-22						.73[c]	.56[c]	-.18[a]	-.42[c]
BDI							.45[c]	-.16	-.44[c]
NABS								.02	-.21[a]
PABS									.55[c]

[a] $p < .05$ [b] $p < .01$ [c] $p < .001$

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